

# EC219 - Rotator frame

## COVERSHEET

Planned document changes:

Breifly:

2025-04-04. POS.71 depends on quick hitch.

Document changes:

| Date:      | Change:                                                 | Rev.<br>after change: |
|------------|---------------------------------------------------------|-----------------------|
| 2025-01-08 | Bearing ring w. screws replaced. Nipple to frame added. | T                     |
| 2024-05-14 | QSM updated.                                            | S                     |
| 2024-01-08 | Spare parts screws corrected.                           | R                     |
| 2023-11-07 | Screws for lubrication kit added.                       | Q                     |
| 2023-06-29 | Loxeal added. O-ring for worm wheel updated.            | P                     |
| 2022-05-13 | EC219S added. (EC219 with ePS2 compatible sensors)      | O                     |
| 2022-01-26 | Details for end lock added.                             | N                     |
| 2021-09-03 | Rotator frame replaced. Break support added.            | M                     |
| 2021-07-05 | Layout/irrelevant.                                      | L                     |
| 2021-05-28 | Bearing ring updated.                                   | K                     |
| 2020-12-11 | Option 131cc motor on ECHF clarified. Photo added.      | J                     |
| 2020-10-06 | Motor hoses QSM & ECHF replaced. Photo replaced.        | I                     |
| 2018-11-16 | QSM added (also applicable for "Without swivel")        | H                     |
| 2018-08-10 | Layout/irrelevant.                                      | G                     |
| 2018-06-21 | Layout/irrelevant.                                      | F                     |
| 2018-03-19 | New location for seiral no.                             | E                     |
| 2017-10-17 | Sensor for MACS replaced.                               | D                     |
| 2017-08-07 | Layout/irrelevant.                                      | C                     |
| 2017-05-11 | Rotator frame replaced. Coversheet added.               | B                     |

Readers note:



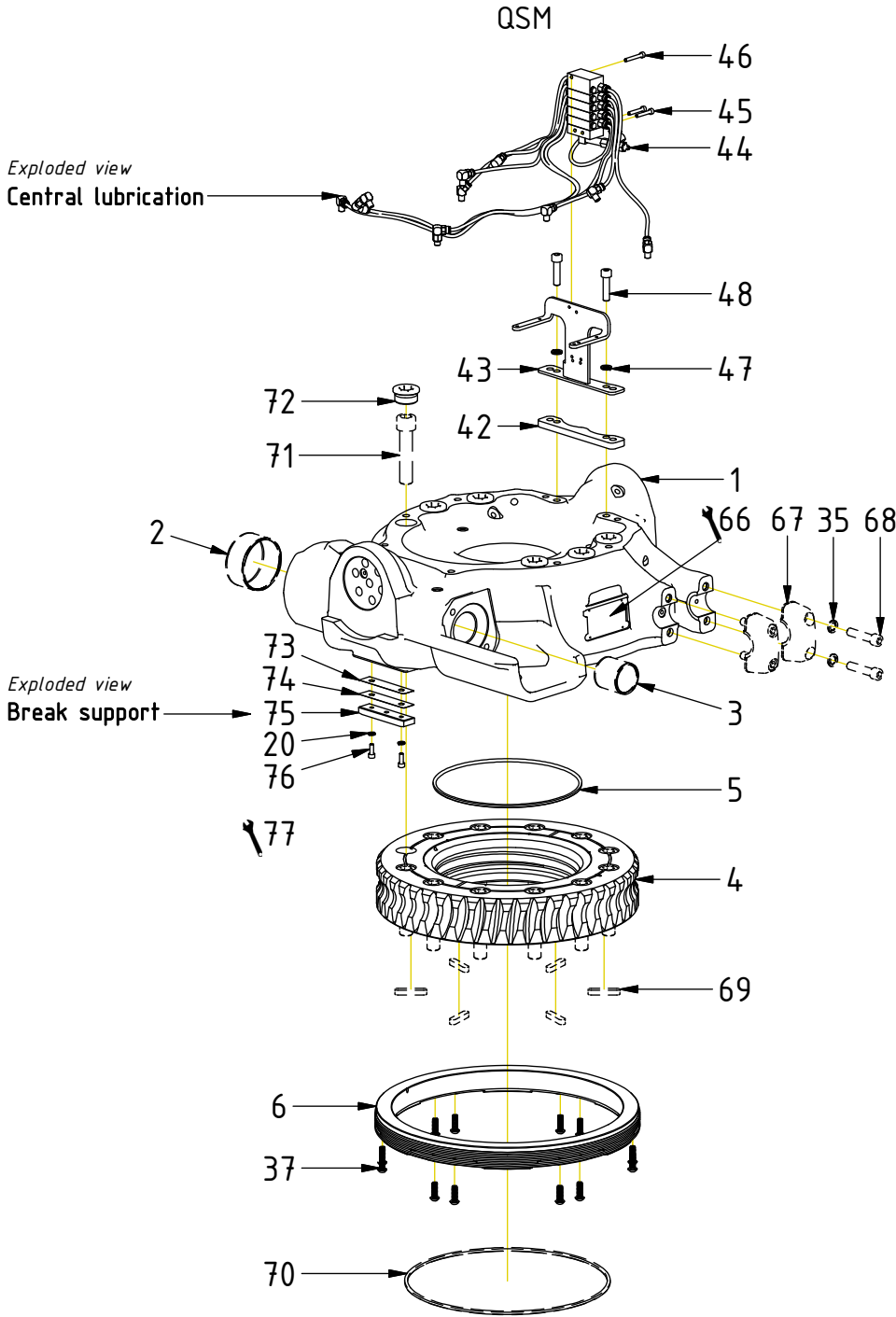
Indicates instruction.



Represents Hose.

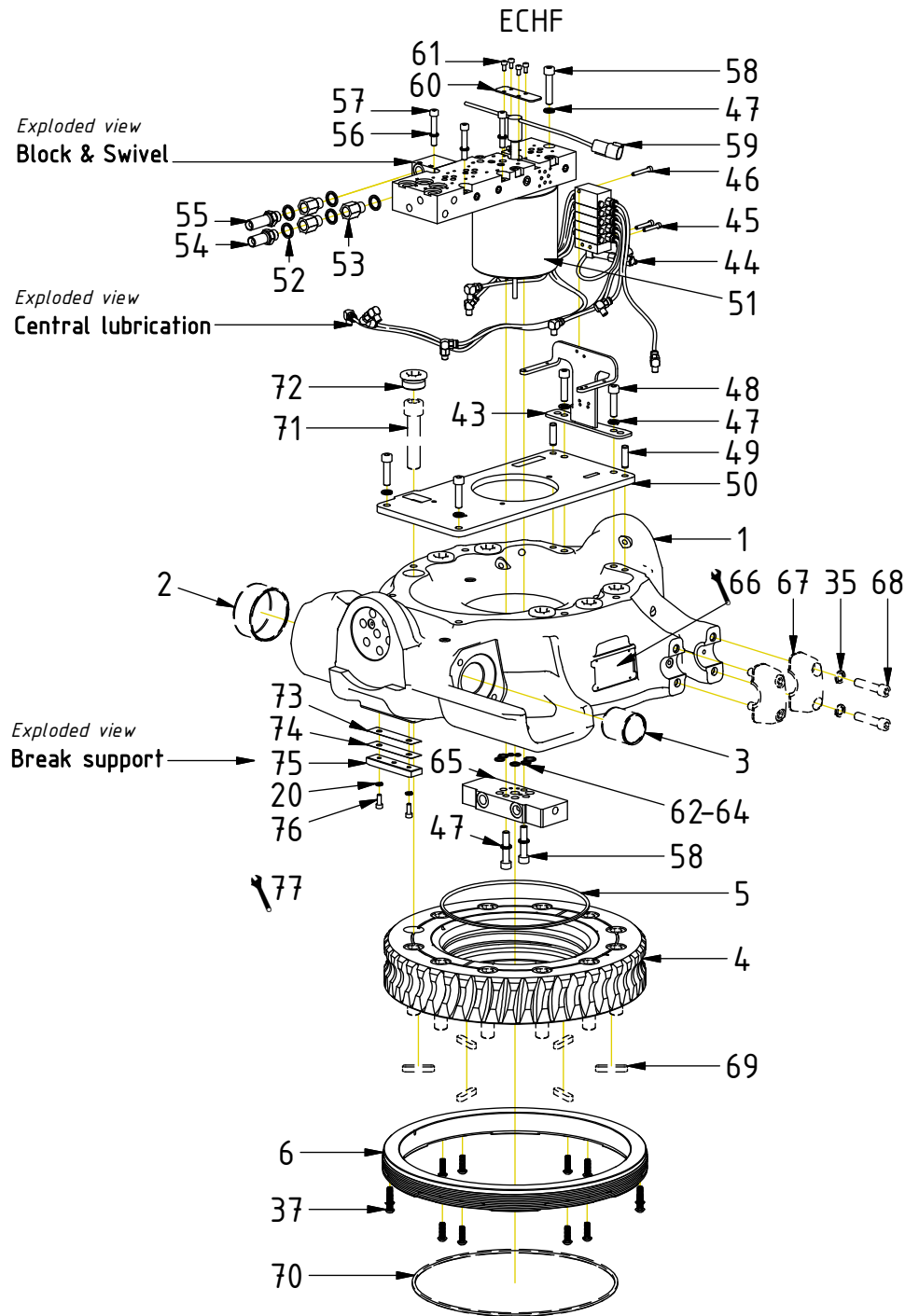
Dashed lines for overview, mounts on other pages/assemblies.

EC219 - Rotator frame



| POS | DESCRIPTION                        | PART    | QTY | COMMENTS                                 |
|-----|------------------------------------|---------|-----|------------------------------------------|
| 1   | Rotator frame EC219 V5             | 1062295 | 1   | (POS.2-3 incl.)                          |
| 2   | Bushing WB802 80/85x40             | 630103  | 1   |                                          |
| 3   | Bushing WB802 45/50x50             | 630102  | 1   |                                          |
| 4   | Worm wheel EC219                   | 1016409 | 1   |                                          |
| 5   | O-ring 225x5                       | 7001662 | 1   |                                          |
| 6   | Bearing ring EC219 V2              | 1077005 | 1   | (Only compatible with 8x25)              |
| 20  | Washer NL 6mm                      | 611039  | 2   |                                          |
| 35  | Washer NL 12mm                     | 611042  | 10  | QTY: 8 part of top part                  |
| 37  | Screw TX45 8x25 10,9 FZB           | 1078840 | 12  | Torque: 34Nm<br>Tighten in cross pattern |
| 42  | Spacer central lubrication QSM     | 1047832 | 1   |                                          |
| 43  | Mounting plate lube. ECHF/QSM      | 1031517 | 1   |                                          |
| 44  | Lubrication kit                    | 1021135 | 1   |                                          |
| 45  | Screw MC6S M5x30 12.9              | 610403  | 2   |                                          |
| 46  | Screw MC6S M5x35 12.9              | 610404  | 1   |                                          |
| 47  | Washer NL 10mm                     | 611041  | 2   | QTY: 7 for ECHF                          |
| 48  | Screw MC6S M10x40 12.9 ZFSL        | 612020  | 4   | QTY: 4 for ECHF. Torque: 79Nm            |
| 66  | Punch serial no into rotator frame |         |     |                                          |
| 67  | Clamping half Complete             | 1016393 | 4   | Part of top part                         |
| 68  | Screw MC6S M12x55 12.9 ZFSL        | 6000155 | 8   | Part of top part. Torque: 136Nm          |
| 69  | Feather Key                        | 650102  | 6   | Part of quick hitch                      |
| 70  | O-ring 319,3x5,7                   | 710908  | 1   | Part of quick hitch                      |
| 71  | Screw MC6S M20x90 12.9             | 610556  | 12  | Part of quick hitch. Torque: 649Nm       |
| 72  | Pipe plug M36x2                    | 650408  | 6   |                                          |
| 73  | Shim supporting plate 0,1mm        | 1055262 | 1   |                                          |
| 74  | Shim supporting plate 0,3mm        | 1055260 | 1   |                                          |
| 75  | Supporting plate                   | 1055258 | 1   |                                          |
| 76  | Screw MC6S M6x16 12.9 ZFSL         | 6000017 | 2   |                                          |
| 77  | Break play: 0,5 - 0,7mm            |         |     | Assy. between frame & quick hitch        |

POS in order of assembly

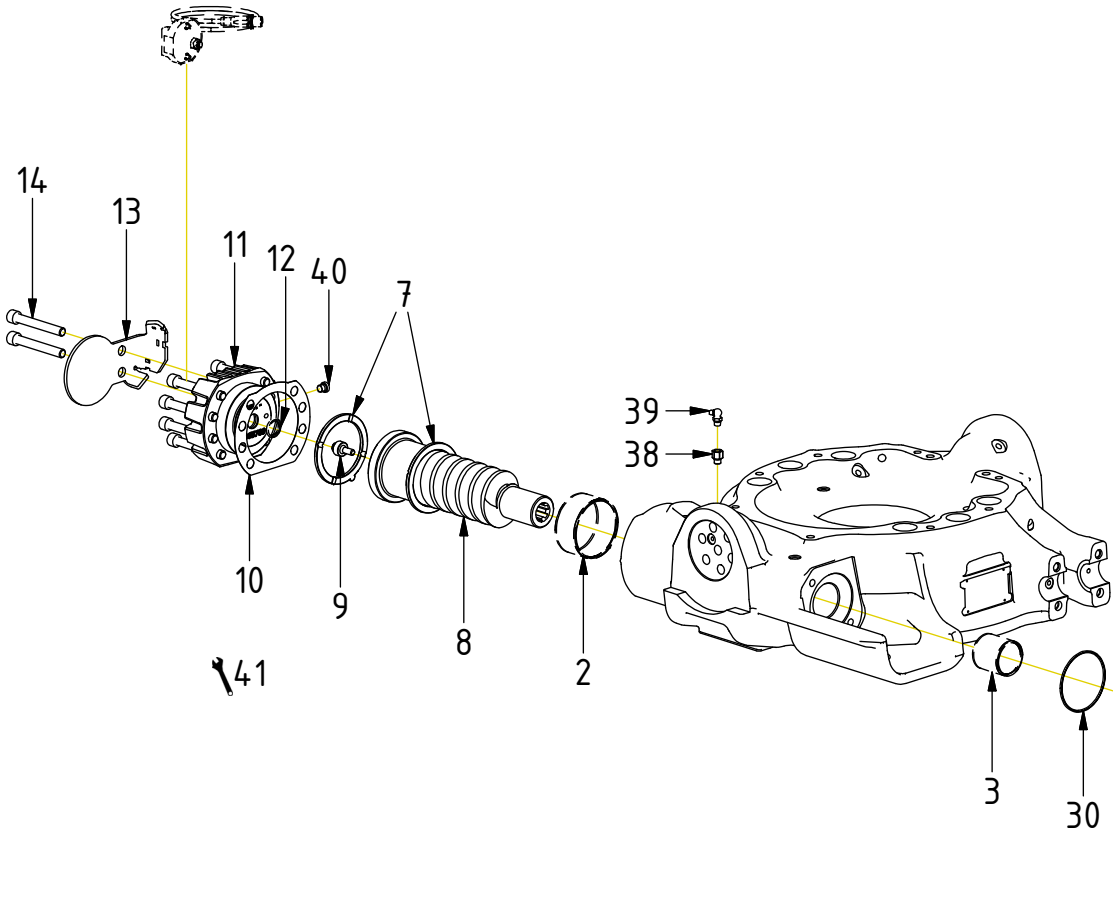


| POS | DESCRIPTION                           | PART    | QTY | COMMENTS                                 |
|-----|---------------------------------------|---------|-----|------------------------------------------|
| 1   | Rotator frame EC219 V5                | 1062295 | 1   | (POS.2-3 incl.)                          |
| 2   | Bushing WB802 80/85x40                | 630103  | 1   |                                          |
| 3   | Bushing WB802 45/50x50                | 630102  | 1   |                                          |
| 4   | Worm wheel EC219                      | 1016409 | 1   |                                          |
| 5   | O-ring 225x5                          | 7001662 | 1   |                                          |
| 6   | Bearing ring EC219 V2                 | 1077005 | 1   | (Only compatible with 8x25)              |
| 20  | Washer NL 6mm                         | 611039  | 2   |                                          |
| 35  | Washer NL 12mm                        | 611042  | 10  | QTY: 8 part of top part                  |
| 37  | Screw TX45 8x25 10,9 FZB              | 1078840 | 12  | Torque: 34Nm<br>Tighten in cross pattern |
| 43  | Mounting plate lube. ECHF/QSM         | 1031517 | 1   |                                          |
| 44  | Lubrication kit                       | 1021135 | 1   |                                          |
| 45  | Screw MC6S M5x30 12.9                 | 610403  | 2   |                                          |
| 46  | Screw MC6S M5x35 12.9                 | 610404  | 1   |                                          |
| 47  | Washer NL 10mm                        | 611041  | 2   | QTY: 7 for ECHF                          |
| 48  | Screw MC6S M10x40 12.9 ZFSHL          | 612020  | 4   | QTY: 4 for ECHF. Torque: 79Nm            |
| 49  | Cylindrical pin                       | 1015672 | 2   |                                          |
| 50  | Valve plate ECHF                      | 1024824 | 1   |                                          |
| 51  | Valve bl. & Swivl for slipring Compl. | 1027386 | 1   |                                          |
| 52  | Washer GBR06 3/8                      | 710703  | 5   |                                          |
| 53  | Adapter 236-06-06                     | 710131  | 3   |                                          |
| 54  | Adapter 1260-06-32 (3/8")             | 710242  | 1   |                                          |
| 55  | Adapter 1260-06-43 (3/8")             | 710262  | 1   |                                          |
| 56  | Washer NL 8mm                         | 611040  | 3   |                                          |
| 57  | Screw MC6S 8x50 12.9                  | 610439  | 3   |                                          |
| 58  | Screw MC6S M10x50 12.9 ZFSHL          | 611515  | 3   |                                          |
| 59  | Kit slip ring ECHF DTM                | 1030298 | 1   | For QS. See "Slip rings"                 |
| 60  | Cover plate slip ring                 | 1026200 | 1   |                                          |
| 61  | Screw MC6S M5x10 12.9                 | 610594  | 4   |                                          |
| 62  | O-ring 6,07x1,78                      | 712422  | 2   |                                          |
| 63  | O-ring 12,42x1,78                     | 710973  | 4   |                                          |
| 64  | O-ring 15,6x1,78                      | 710912  | 1   |                                          |
| 65  | Connection block ECHF                 | 1028391 | 1   | Guide with spring pin from swivel        |
| 66  | Punch serial no into rotator frame    |         |     |                                          |
| 67  | Clamping half Complete                | 1016393 | 4   | Part of top part                         |
| 68  | Screw MC6S M12x55 12.9 ZFSHL          | 6000155 | 8   | Part of top part. Torque: 136Nm          |
| 69  | Feather Key                           | 650102  | 6   | Part of quick hitch                      |
| 70  | O-ring 319,3x5,7                      | 710908  | 1   | Part of quick hitch                      |
| 71  | Screw MC6S M20x90 12.9                | 610556  | 12  | Part of quick hitch. Torque: 649Nm       |
| 72  | Pipe plug M36x2                       | 650408  | 6   |                                          |
| 73  | Shim supporting plate 0,1mm           | 1055262 | 1   |                                          |
| 74  | Shim supporting plate 0,3mm           | 1055260 | 1   |                                          |
| 75  | Supporting plate                      | 1055258 | 1   |                                          |
| 76  | Screw MC6S M6x16 12.9 ZFSHL           | 6000017 | 2   |                                          |
| 77  | Break play: 0,5 - 0,7mm               |         |     | Assy. between frame & quick hitch        |

EC219 - Rotator frame

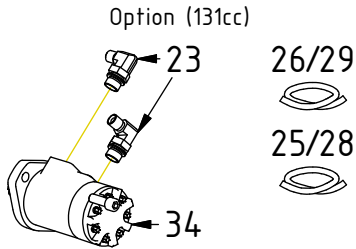
EC219S

Exploded view  
ePS2 Sensors



| POS | DESCRIPTION                        | PART    | QTY | COMMENTS                          |
|-----|------------------------------------|---------|-----|-----------------------------------|
| 2   | Bushing WB802 80/85x40             | 630103  | 1   |                                   |
| 3   | Bushing WB802 45/50x50             | 630102  | 1   |                                   |
| 7   | Axial washer (with ear)            | 1079941 | 2   | Face grooves toward worm screw    |
| 8   | Worm Screw EC219                   | 1016408 | 1   |                                   |
| 9   | Magnet Spacer Worm Screw           | 1062693 | 1   | Loxeal 83-52. Torque: 20Nm        |
| 10  | Shims kit End Lock 0,3-0,4-0,5 mm  | 1034434 | 1   |                                   |
| 11  | End Lock EC219S Cast               | 1065789 | 1   | (POS.12 incl.)                    |
| 12  | Seal end lock 20x27.5x3.2          | 1063616 | 1   |                                   |
| 13  | Protection plate EC219S            | 1063372 | 1   |                                   |
| 14  | Screw MC6S M12x90 12.9 ZFSL        | 6000147 | 8   | Torque: 136Nm                     |
| 23  | Adapter 401-06-08 90° (3/8"-1/2")  | 710157  | 2   |                                   |
| 24  | Hose hyd motor Short QSM 160cc     | 7000790 | 1   | Part of quick hitch               |
| 25  | Hose hyd motor Short QSM 131cc     | 7000789 | 1   | Part of quick hitch               |
| 26  | Hose hy motor Long QSM 131/160cc   | 7000724 | 1   | Part of quick hitch               |
| 27  | Hose hyd motor Long ECHF 160cc     | 7001404 | 1   |                                   |
| 28  | Hose hyd motor Long ECHF 131cc     | 7000025 | 1   |                                   |
| 29  | Hose hy motor Short ECHF 131/160cc | 7000026 | 1   |                                   |
| 30  | O-ring 82,22x2.62                  | 7000920 | 1   |                                   |
| 31  | Hydraulic motor 160cc + chockvalve | 1022290 | 1   | (POS.32-33 incl.)                 |
| 32  | Hydraulic motor White 160cc        | 7001806 | 1   |                                   |
| 33  | Relief valve White 160/200cc       | 7001647 | 1   | Torque: 77Nm. Assy. before motor  |
| 34  | Hydraulic motor 131cc              | 720112  | 1   | Option                            |
| 35  | Washer NL 12mm                     | 611042  | 10  | QTY: 8 part of top part           |
| 36  | Screw MC6S M12x35 12.9 ZFSL        | 6000150 | 2   | Torque: 136Nm                     |
| 38  | Extender straingt 1/8"             | 712216  | 1   |                                   |
| 39  | Grease Nipple                      | 711409  | 1   |                                   |
| 40  | Plug 70125-02 (1/8")               | 711503  | 1   | QTY: 2 for EC219S                 |
| 41  | Rotation play: 0,12mm - 0,20mm     |         |     | Note rotation play on module card |

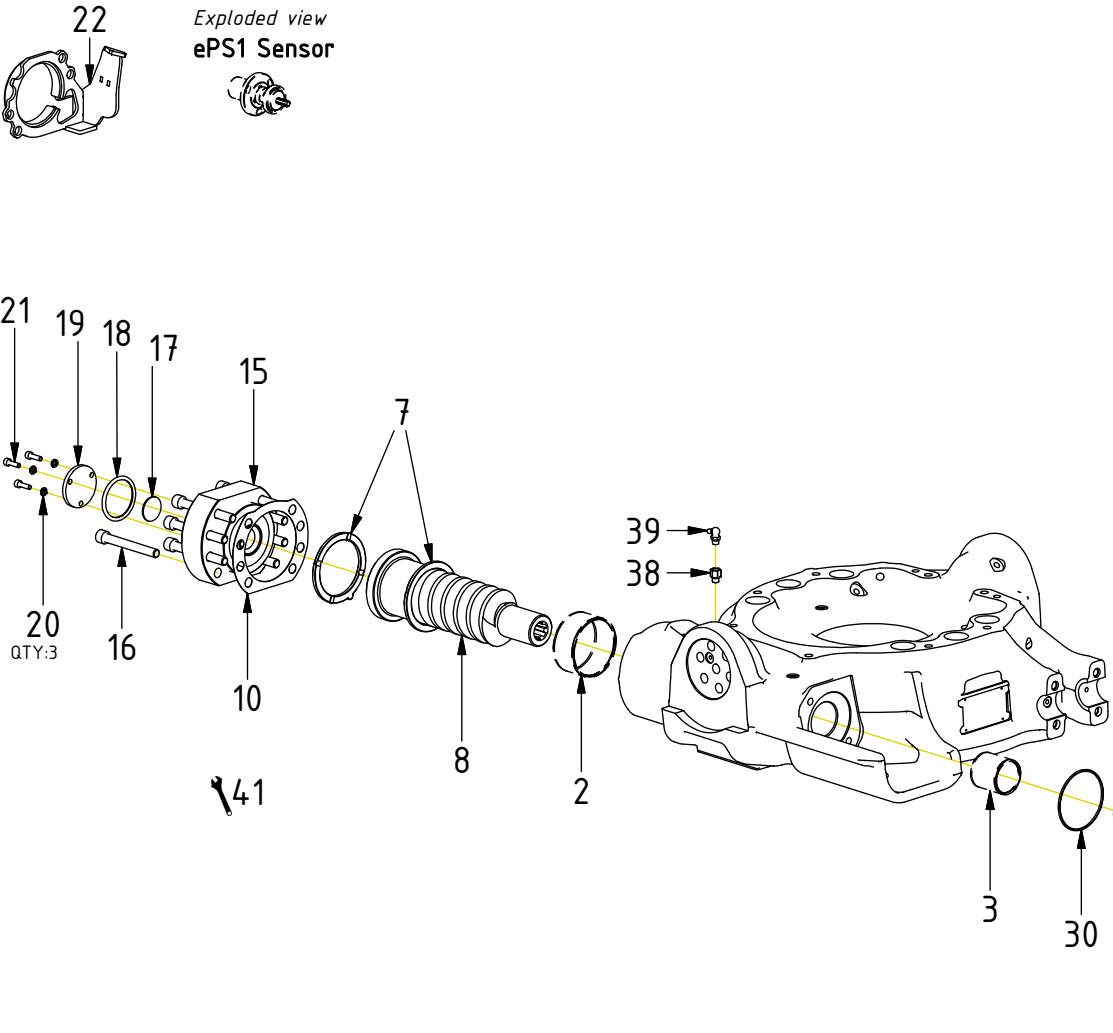
26/29  
24/27



EC219/EC219PS

Option ePS:

Exploded view  
ePS1 Sensor



| POS | DESCRIPTION                        | PART    | QTY | COMMENTS                          |
|-----|------------------------------------|---------|-----|-----------------------------------|
| 2   | Bushing WB802 80/85x40             | 630103  | 1   |                                   |
| 3   | Bushing WB802 45/50x50             | 630102  | 1   |                                   |
| 7   | Axial washer (with ear)            | 1079941 | 2   | Face grooves toward worm screw    |
| 8   | Worm Screw EC219                   | 1016408 | 1   |                                   |
| 10  | Shims kit End Lock 0,3-0,4-0,5 mm  | 1034434 | 1   |                                   |
| 15  | End lock EC209/EC214/EC219         | 1016557 | 1   |                                   |
| 16  | Screw MC6S M12x100 12.9 Geomet     | 611514  | 8   | Torque: 136Nm                     |
| 17  | Spacer Plate                       | 1065370 | 1   |                                   |
| 18  | O-ring 27x5                        | 7000485 | 1   |                                   |
| 19  | Cover end lock                     | 1041613 | 1   |                                   |
| 20  | Washer NL 6mm                      | 611039  | 2   |                                   |
| 21  | Screw MC6S M6x20 A4-80             | 611513  | 3   |                                   |
| 22  | Protection ePS                     | 1033565 | 1   | For ePS1                          |
| 23  | Adapter 401-06-08 90° (3/8"-1/2")  | 710157  | 2   |                                   |
| 24  | Hose hyd motor Short QSM 160cc     | 7000790 | 1   | Part of quick hitch               |
| 25  | Hose hyd motor Short QSM 131cc     | 7000789 | 1   | Part of quick hitch               |
| 26  | Hose hy motor Long QSM 131/160cc   | 7000724 | 1   | Part of quick hitch               |
| 27  | Hose hyd motor Long ECHF 160cc     | 7001404 | 1   |                                   |
| 28  | Hose hyd motor Long ECHF 131cc     | 7000025 | 1   |                                   |
| 29  | Hose hy motor Short ECHF 131/160cc | 7000026 | 1   |                                   |
| 30  | O-ring 82,22x2.62                  | 7000920 | 1   |                                   |
| 31  | Hydraulic motor 160cc + chockvalve | 1022290 | 1   | (POS.32-33 incl.)                 |
| 32  | Hydraulic motor White 160cc        | 7001806 | 1   |                                   |
| 33  | Relief valve White 160/200cc       | 7001647 | 1   | Torque: 77Nm. Assy. before motor  |
| 34  | Hydraulic motor 131cc              | 720112  | 1   | Option                            |
| 35  | Washer NL 12mm                     | 611042  | 10  | QTY: 8 part of top part           |
| 36  | Screw MC6S M12x35 12.9 ZFSHL       | 6000150 | 2   | Torque: 136Nm                     |
| 38  | Extender straingt 1/8"             | 712216  | 1   |                                   |
| 39  | Grease Nipple                      | 711409  | 1   |                                   |
| 41  | Rotation play: 0,12mm - 0,20mm     |         |     | Note rotation play on module card |

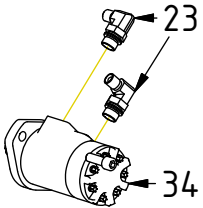
26/29

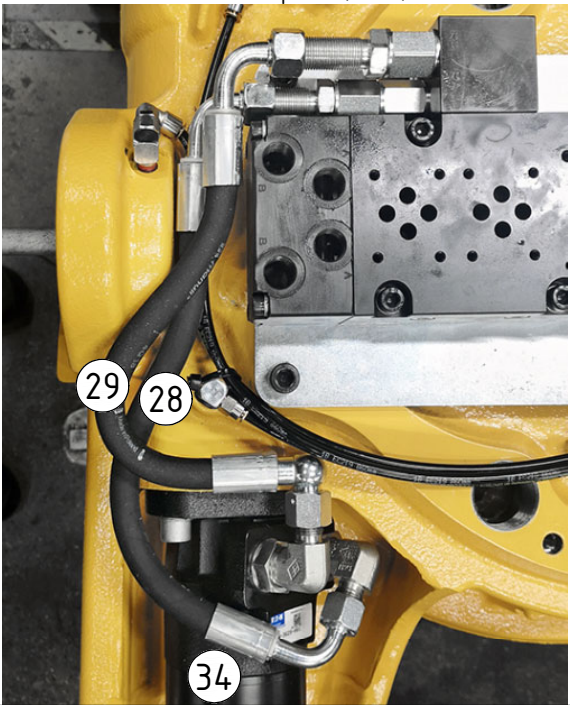
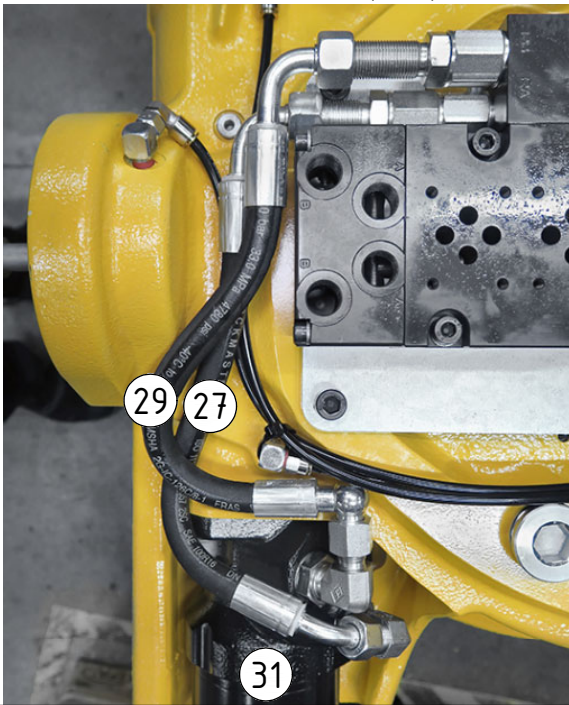
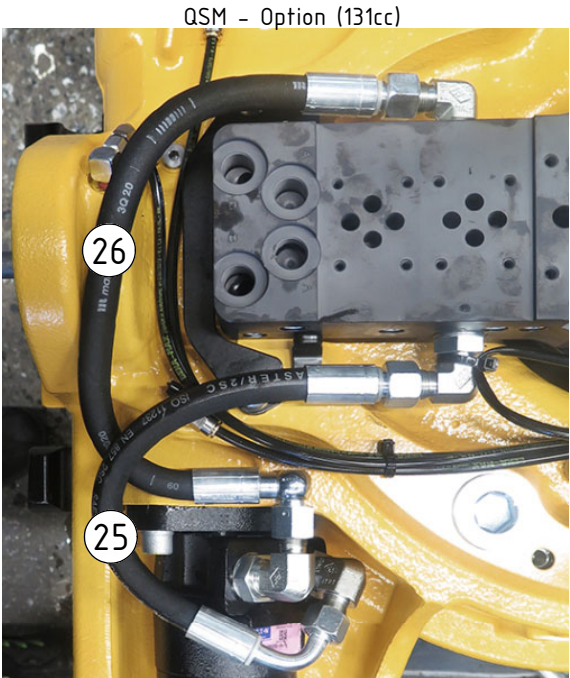
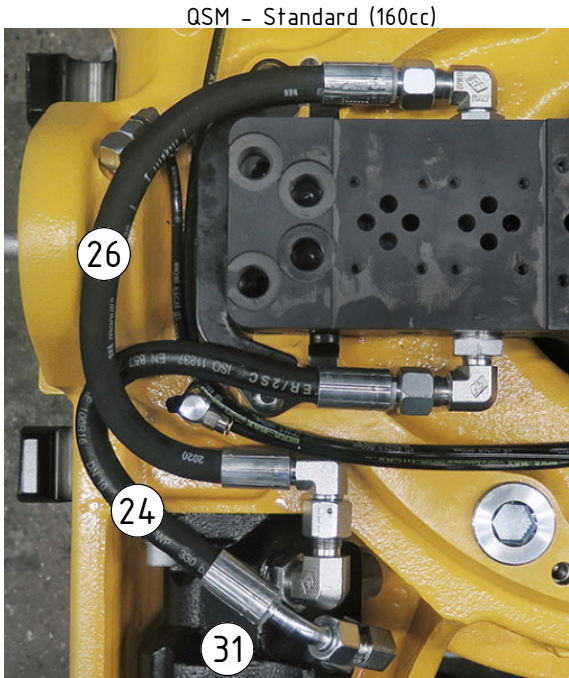
24/27

Option (131cc)

26/29

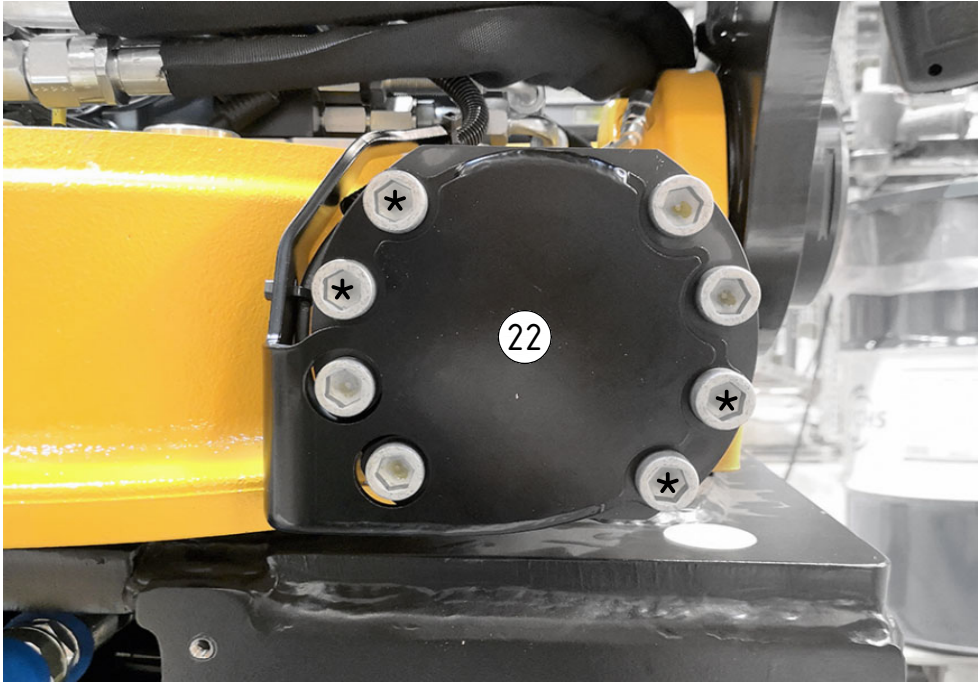
25/28





| POS | DESCRIPTION                        | PART    | QTY | COMMENTS            |
|-----|------------------------------------|---------|-----|---------------------|
| 22  | Protection ePS                     | 1033565 | 1   | For ePS1            |
| 24  | Hose hyd motor Short QSM 160cc     | 7000790 | 1   | Part of quick hitch |
| 25  | Hose hyd motor Short QSM 131cc     | 7000789 | 1   | Part of quick hitch |
| 26  | Hose hy motor Long QSM 131/160cc   | 7000724 | 1   | Part of quick hitch |
| 27  | Hose hyd motor Long ECHF 160cc     | 7001404 | 1   |                     |
| 28  | Hose hyd motor Long ECHF 131cc     | 7000025 | 1   |                     |
| 29  | Hose hy motor Short ECHF 131/160cc | 7000026 | 1   |                     |
| 31  | Hydraulic motor 160cc + chockvalve | 1022290 | 1   | (POS.32-33 incl.)   |
| 34  | Hydraulic motor 131cc              | 720112  | 1   | Option              |

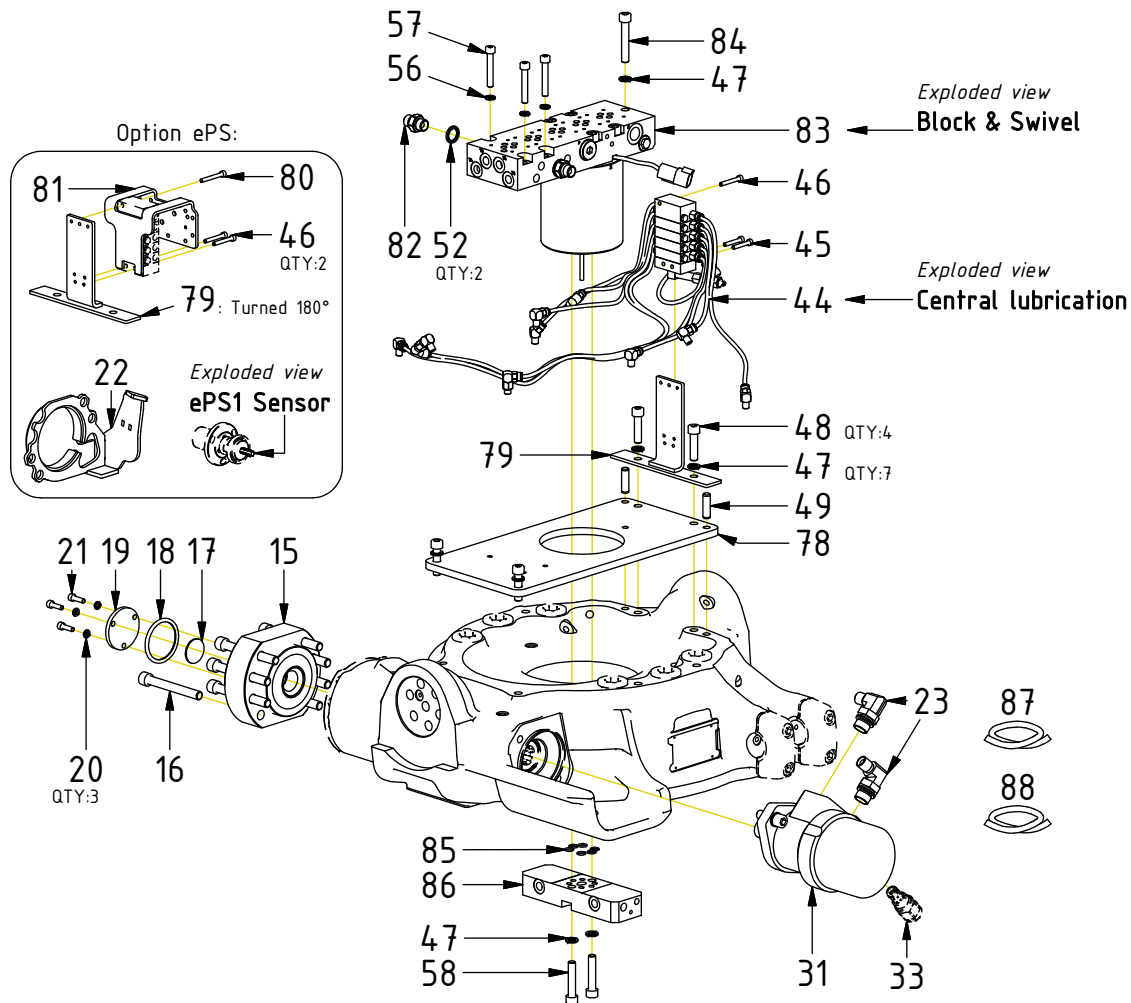
ePS1:



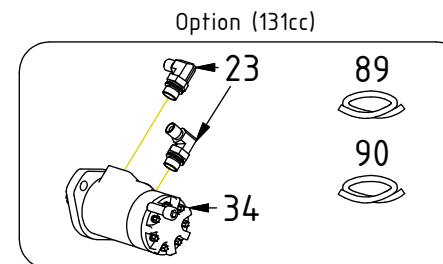
\* No torque until control system assembly

## SPARE PARTS

EC219 6-ch

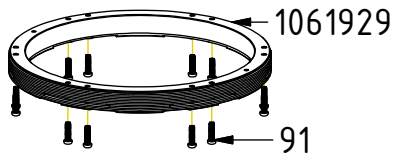


| POS | DESCRIPTION                           | PART    | QTY | COMMENTS                           |
|-----|---------------------------------------|---------|-----|------------------------------------|
| 15  | End lock EC209/EC214/EC219            | 1016557 | 1   |                                    |
| 16  | Screw MC6S M12x100 12.9 Geomet        | 611514  | 8   | Torque: 136Nm                      |
| 17  | Spacer Plate                          | 1065370 | 1   |                                    |
| 18  | O-ring 27x5                           | 7000485 | 1   |                                    |
| 19  | Cover end lock                        | 1041613 | 1   |                                    |
| 20  | Washer NL 6mm                         | 611039  | 2   |                                    |
| 21  | Screw MC6S M6x20 A4-80                | 611513  | 3   |                                    |
| 22  | Protection ePS                        | 1033565 | 1   | For ePS1                           |
| 23  | Adapter 401-06-08 90° (3/8"-1/2")     | 710157  | 2   |                                    |
| 31  | Hydraulic motor 160cc + chockvalve    | 1022290 | 1   | (POS.32-33 incl.)                  |
| 32  | Hydraulic motor White 160cc           | 7001806 | 1   |                                    |
| 33  | Relief valve White 160/200cc          | 7001647 | 1   | Torque: 77Nm. Assy. before motor   |
| 34  | Hydraulic motor 131cc                 | 720112  | 1   | Option                             |
| 44  | Lubrication kit                       | 1021135 | 1   |                                    |
| 45  | Screw MC6S M5x30 12.9                 | 610403  | 2   |                                    |
| 46  | Screw MC6S M5x35 12.9                 | 610404  | 1   |                                    |
| 47  | Washer NL 10mm                        | 611041  | 2   | QTY: 7 for ECHF                    |
| 48  | Screw MC6S M10x40 12.9 ZFSHL          | 612020  | 4   | QTY: 4 for ECHF. Torque: 79Nm      |
| 49  | Cylindrical pin                       | 1015672 | 2   |                                    |
| 52  | Washer GBR06 3/8                      | 710703  | 5   |                                    |
| 56  | Washer NL 8mm                         | 611040  | 3   |                                    |
| 57  | Screw MC6S 8x50 12.9                  | 610439  | 3   |                                    |
| 58  | Screw MC6S M10x50 12.9 ZFSHL          | 611515  | 3   |                                    |
| 78  | Valve plate                           | 1011515 | 1   |                                    |
| 79  | Mounting plate lubrication 6-ch       | 1018052 | 1   |                                    |
| 80  | Screw MC6S M5x40 12.9                 | 610405  | 1   |                                    |
| 81  | Mounting plate angle sensor ePS       | 1029973 | 1   |                                    |
| 82  | Adapter 136-06-06 (3/8")              | 710106  | 2   |                                    |
| 83  | Valve bl. & Swivel w. slipring Compl. | 1030297 | 1   |                                    |
| 84  | Screw MC6S M10x60 12.9                | 610460  | 1   |                                    |
| 85  | O-ring 9,25x1,78                      | 710901  | 6   |                                    |
| 86  | Connection block 6-ch                 | 202828  | 1   | "1" on swivel against "X" on block |
| 87  | Hose hyd motor Long 6-ch 160cc        | 742635  | 1   |                                    |
| 88  | Hose hyd motor Short 6-ch 160cc       | 742634  | 1   |                                    |
| 89  | Hose hyd motor Long 6-ch 131cc        | 7000327 | 1   |                                    |
| 90  | Hose hyd motor Short 6-ch 131cc       | 7000326 | 1   |                                    |

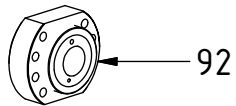
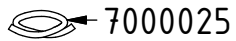


## SPARE PARTS

Replaced from 2024-11:

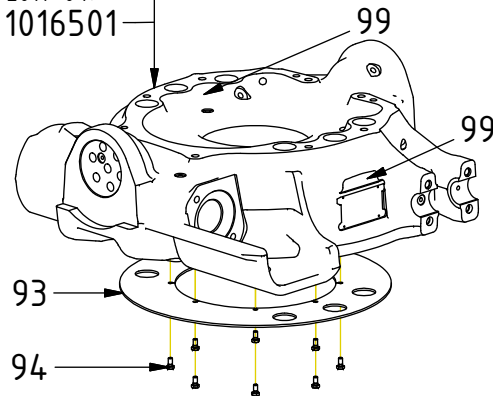


Replaced from 2022-01:

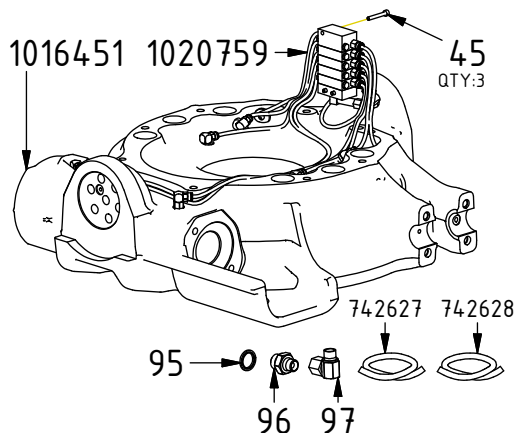
Replaced on ECHF 160cc  
from 2020-10:

(Still relevant for 131cc)

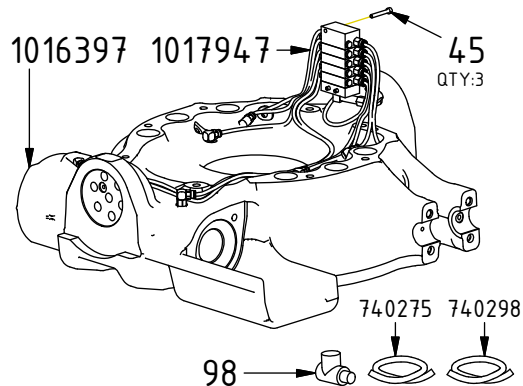
Replaced from

2021-07:  
10230092017-04:  
1016501

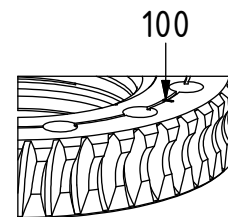
Replaced from 2013-03:



Replaced from 2013-01:



| POS | DESCRIPTION                        | PART    | QTY | COMMENTS                                                             |
|-----|------------------------------------|---------|-----|----------------------------------------------------------------------|
| 1   | Rotator frame EC219 V5             | 1062295 | 1   | (POS.2-3 incl.)                                                      |
| 6   | Bearing ring EC219 V2              | 1077005 | 1   | (Only compatible with 8x25)                                          |
| 15  | End lock EC209/EC214/EC219         | 1016557 | 1   |                                                                      |
| 27  | Hose hyd motor Long ECHF 160cc     | 7001404 | 1   |                                                                      |
| 28  | Hose hyd motor Long ECHF 131cc     | 7000025 | 1   |                                                                      |
| 29  | Hose hy motor Short ECHF 131/160cc | 7000026 | 1   |                                                                      |
| 37  | Screw TX45 8x25 10,9 FZB           | 1078840 | 12  | Torque: 34Nm<br>Tighten in cross pattern                             |
| 44  | Lubrication kit                    | 1021135 | 1   |                                                                      |
| 45  | Screw MC6S M5x30 12.9              | 610403  | 2   |                                                                      |
| 87  | Hose hyd motor Long 6-ch 160cc     | 742635  | 1   |                                                                      |
| 88  | Hose hyd motor Short 6-ch 160cc    | 742634  | 1   |                                                                      |
| 89  | Hose hyd motor Long 6-ch 131cc     | 7000327 | 1   |                                                                      |
| 90  | Hose hyd motor Short 6-ch 131cc    | 7000326 | 1   |                                                                      |
| 91  | Screw TX45 M8x30 FZB 10,9          | 612201  | 13  | Torque: 34Nm. Used with 1061929                                      |
| 92  | End lock standard & MACS           | 1016415 | 1   | Replaced by POS.15 from 2022-01<br>MACS: Replaces 1028628 from 16-10 |
| 93  | Wear Washer EC219                  | 1016414 | 1   | Used until 2017-04                                                   |
| 94  | Screw M6S M6x12 8,8 FZB            | 610108  | 8   | Used until 2017-04                                                   |
| 95  | Washer GBR08 1/2                   | 710704  | 1   | Used until 2013-03                                                   |
| 96  | Adapter 135-06-08                  | 710122  | 1   | Used until 2013-03                                                   |
| 97  | Adapter 090-06-06 90° (3/8")       | 710216  | 1   | Used until 2013-03                                                   |
| 98  | Adapter DSVW-15 LR                 | 710510  | 1   | Used until 2013-01                                                   |
| 99  | Old serial number locations        |         |     | Current location found on p.2/3                                      |
| 100 | MACS Magnet 8x5x3                  | 6000047 | 1   | Loctite 415. Harden 1 minute                                         |
| 101 | MACS Inductive sensor M8 PNP       | 1043698 | 1   | Distance 3mm. Nut torque: 3Nm                                        |
| 102 | MACS Inductive sensor M8-M12       | 1028045 | 1   | Replaced by POS.101 from 2017-08<br>Distance 4mm. Nut torque: 3Nm    |
| 103 | MACS Pipe Plug M36/M8              | 650411  | 1   |                                                                      |



MACS:

